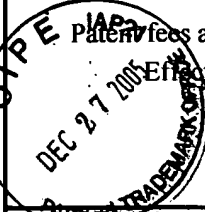
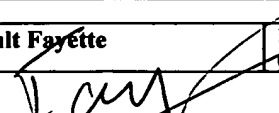


AF/1771

<b>FEE TRANSMITTAL</b> <b>for FY 2005</b> Patent fees are subject to annual revision. Effective December 8, 2004 	<b>Complete if Known</b>	
	Application Number	09/729,626
	Confirmation Number	5406
	Filing Date	November 30, 2000
	First Named Inventor	Wong <i>et al.</i>
	Examiner Name	E. M. Cole
	Art Unit	1771
<b>TOTAL AMOUNT OF PAYMENT (\$)</b> 500		Attorney Docket No. 7880MLS

<b>METHOD OF PAYMENT</b>		<b>FEE CALCULATION (continued)</b>																															
1. <input checked="" type="checkbox"/> The Director is hereby authorized to charge indicated fees submitted on this form, credit any over payments, and charge any additional fee(s) during the pendency of this application to: Deposit Account Number: 16-2480 Deposit Account Name: <b>The Procter &amp; Gamble Company</b>		5. <b>ADDITIONAL FEES</b> <table border="1"> <thead> <tr> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Extension for reply within 1<sup>st</sup> month</td> <td>(\$120) <input type="checkbox"/></td> </tr> <tr> <td>Extension for reply within 2<sup>nd</sup> month</td> <td>(\$450) <input checked="" type="checkbox"/></td> </tr> <tr> <td>Extension for reply within 3<sup>rd</sup> month</td> <td>(\$1,020) <input type="checkbox"/></td> </tr> <tr> <td>Extension for reply within 4<sup>th</sup> month</td> <td>(\$1,590) <input type="checkbox"/></td> </tr> <tr> <td>Extension for reply within 5<sup>th</sup> month</td> <td>(\$2,160) <input type="checkbox"/></td> </tr> <tr> <td>Information Disclosure Statement fee</td> <td>(\$180) <input type="checkbox"/></td> </tr> <tr> <td>37 CFR 1.16(f) Late Oath/Declaration (nonprovisional)</td> <td>(\$130) <input type="checkbox"/></td> </tr> <tr> <td>37 CFR 1.17 (g) Surcharge - Late provisional filing fee or cover sheet</td> <td>(\$50) <input type="checkbox"/></td> </tr> <tr> <td>Non-English specification</td> <td>(\$130) <input type="checkbox"/></td> </tr> <tr> <td>Notice of Appeal</td> <td>(\$500) <input type="checkbox"/></td> </tr> <tr> <td>Filing a brief in support of an appeal</td> <td>(\$500) <input checked="" type="checkbox"/></td> </tr> <tr> <td>Request for oral hearing</td> <td>(\$1,000) <input type="checkbox"/></td> </tr> <tr> <td>Acceptance of unintentionally delayed claim for priority under 35 U.S.C. 119, 120, 121, or 365 (a) or (c)</td> <td>(\$1,370) <input type="checkbox"/></td> </tr> <tr> <td>Other:</td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		Fee Description	Fee Paid	Extension for reply within 1 <sup>st</sup> month	(\$120) <input type="checkbox"/>	Extension for reply within 2 <sup>nd</sup> month	(\$450) <input checked="" type="checkbox"/>	Extension for reply within 3 <sup>rd</sup> month	(\$1,020) <input type="checkbox"/>	Extension for reply within 4 <sup>th</sup> month	(\$1,590) <input type="checkbox"/>	Extension for reply within 5 <sup>th</sup> month	(\$2,160) <input type="checkbox"/>	Information Disclosure Statement fee	(\$180) <input type="checkbox"/>	37 CFR 1.16(f) Late Oath/Declaration (nonprovisional)	(\$130) <input type="checkbox"/>	37 CFR 1.17 (g) Surcharge - Late provisional filing fee or cover sheet	(\$50) <input type="checkbox"/>	Non-English specification	(\$130) <input type="checkbox"/>	Notice of Appeal	(\$500) <input type="checkbox"/>	Filing a brief in support of an appeal	(\$500) <input checked="" type="checkbox"/>	Request for oral hearing	(\$1,000) <input type="checkbox"/>	Acceptance of unintentionally delayed claim for priority under 35 U.S.C. 119, 120, 121, or 365 (a) or (c)	(\$1,370) <input type="checkbox"/>	Other:	<input type="checkbox"/>
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3. <b>APPLICATION SIZE FEE:</b> Sheets of Spec and Drawings <input type="checkbox"/> (\$250 for each 50 sheets in excess of 100, except for sequence and program listings) <b>SUBTOTAL (2)+(3) (\$)</b> 0																																	
4. <b>EXTRA CLAIM FEES FOR UTILITY AND REISSUE:</b> <table border="1"> <thead> <tr> <th></th> <th>Extra Claims</th> <th>Fee from Below</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr> <td>Total Claims</td> <td><input type="checkbox"/> - 20** = <input type="checkbox"/> x</td> <td><input type="checkbox"/> =</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Independent Claims</td> <td><input type="checkbox"/> - 3** = <input type="checkbox"/> x</td> <td><input type="checkbox"/> =</td> <td><input type="checkbox"/></td> </tr> <tr> <td>Multiple Dependent claims:</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/> =</td> <td><input type="checkbox"/></td> </tr> </tbody> </table> ** or number previously paid, if greater, For Reissues, see below <b>Fee Description</b> Claims in excess of 20 (\$50 per claim) Independent claims in excess of 3 (\$200 per claim) Multiple dependent claim, if not paid (\$360) **Reissue: each independent claim over 3 and more than in the original patent (\$200 per claim) **Reissue claims: each claim over 20 and more than original patent (\$50 per claim)			Extra Claims	Fee from Below	Fee Paid	Total Claims	<input type="checkbox"/> - 20** = <input type="checkbox"/> x	<input type="checkbox"/> =	<input type="checkbox"/>	Independent Claims	<input type="checkbox"/> - 3** = <input type="checkbox"/> x	<input type="checkbox"/> =	<input type="checkbox"/>	Multiple Dependent claims:	<input type="checkbox"/>	<input type="checkbox"/> =	<input type="checkbox"/>																
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<b>SUBTOTAL (4) (\$)</b> 0		<b>SUBTOTAL(5) (\$)</b> 950																															

<b>SUBMITTED BY</b>		<b>Complete (if applicable)</b>	
Name (Print/Type)	Thibault Fayette	Registration No. (Attorney/Agent)	56,143
Signature		Telephone	(513) 627-4593
		Date	December 20, 2005

+ This collection of information is required by 37 CFR 1.17. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 102 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P. O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



Certification of Mailing or Facsimile Transmission	
I hereby certify that I have reasonable basis to expect that, on the date shown below, this correspondence is being submitted as indicated below:	
<input checked="" type="checkbox"/> X I mailed or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Mail Stop <u>Appeal Brief-Patents</u> , Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450	
<input type="checkbox"/> I facsimile transmitted to the U.S. Patent and Trademark Office via fax number (571) 273-8300	
Name <u>Noreen Pierani</u>	Registration No (if applicable)
Signature <u>Noreen Pierani</u>	
Date <u>December 20, 2005</u>	

P&G Case 7880M

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the application of :  
Wong *et al.* : Confirmation No. 5406  
Serial No. 09/729,626 : Group Art Unit: 1771  
Filed: November 30, 2000 : Examiner: E. M. Cole

For NON-APERTURED CLEANING SHEETS HAVING NON-RANDOM MACROSCOPIC  
THREE-DIMENSIONAL CHARACTER

**APPEAL BRIEF**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Appellants appealed to the Board of Appeals by filing a Notice of Appeal, dated August 30, 2005 from the final rejection of Claims 1-3, 11-18, 21-25, 31-34, 37, 38 and 47-72, as contained in the final Office Action dated March 1, 2005 of the Primary Examiner. The Commissioner is hereby authorized to charge any necessary fees to Deposit Account No. 16-2480.

**(1) REAL PARTY IN INTEREST**

The real party in interest is The Procter & Gamble Company, a corporation of The State of Ohio, having a place of business at Cincinnati, Ohio 45202.

**(2) RELATED APPEALS AND INTERFERENCES**

There are no known related appeals or interferences.

**(3) STATUS OF CLAIMS**

Claims 1-3, 11-18, 21-25, 31-34, 37, 38 and 47-72 are rejected and have been appealed. A copy of the appealed Claims 1-3, 11-18, 21-25, 31-34, 37, 38 and 47-72 is attached as APPENDIX I.

**(4) STATUS OF AMENDMENTS**

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All amendments have been entered.

**(5) SUMMARY OF THE CLAIMED SUBJECT MATTER**

The invention relates to a disposable macroscopically three-dimensional non-apertured cleaning sheet for cleaning a surface having particulate soils (*See inter alia.*, Specification, page 6, lines 29-35) said cleaning sheet comprising a first layer of nonwoven material, a second layer of nonwoven material wherein said first layer is entangled to said second layer (*See inter alia.*, Specification, page 7, lines 31-34), wherein said first and second layers form a structure having a working face and a back face, wherein the working face comprises non-random raised regions and recessed regions (*See inter alia.*, Specification, page 8, lines 1-6), wherein said working face has an Average Height Differential of at least about 1 mm, wherein said recessed regions form a continuous pattern in the X-Y dimension surrounding discrete raised regions wherein said continuous recessed pattern comprises channels having a width of between about 1 mm to about 8 mm (*See inter alia.*, Specification, page 8, lines 15-24) and wherein said non-random raised regions and said recessed regions form pockets on the surface of said working face for trapping particulates from said surface to be cleaned (*See inter alia.*, Specification, page 8, lines 5-6).

The invention also relates to a disposable macroscopically three-dimensional cleaning sheet for cleaning a surface having particulate soils (*See inter alia.*, Specification, page 6, lines 29-35), said cleaning sheet comprising at least one layer of nonwoven material having a working face and a back face, wherein said working face comprises non-random raised regions and recessed regions wherein said recessed regions form a continuous pattern in the X-Y dimension surrounding discrete raised regions (*See inter alia.*, Specification, page 8, lines 1-6) wherein said continuous recessed pattern comprises channels and wherein said working face has an Average Height Differential of at least about 1 mm (*See inter alia.*, Specification, page 8, lines 15-24 and original claim 5).

The invention also relates to a disposable macroscopically three-dimensional cleaning sheet for cleaning a surface having particulate soil (*See inter alia.*, Specification, page 6, lines 29-35), said cleaning sheet comprising at least one layer of nonwoven material having a working face and a back face, wherein said working face comprises raised regions and recessed regions wherein said recessed regions form a continuous pattern in the X-Y dimension surrounding discrete raised regions (*See inter alia.*, Specification, page 8, lines 1-6) wherein said continuous recessed pattern comprises channels having a width of between about 1 mm to about 8 mm (*See inter alia.*,

Specification, page 8, lines 15-24) and wherein said working face has an Average Height Differential of at least about 1 mm such that said raised regions and said recessed regions form pockets on the surface of said working face for trapping and removing large particulates from said surface to be cleaned and wherein said working face comprises an additive for improving the adherence of said particulate soil to said cleaning sheet (*See inter alia.*, Specification, page 10, lines 25-35, page 11 and page 12, lines 1-10).

**(6) GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

A. Whether claims 1, 49 and 62 are allegedly unpatentable under 35 U.S.C. §103(a) over U.S. Patent 5,281,461 to Greenway *et al.*

A copy of the reference is attached as APPENDIX II.

**(7) ARGUMENT**

Claims 1, 49 and 62 are not obvious and therefore patentable under 35 U.S.C. §103(a) U.S. Patent 5,281,461 to Greenway *et al.*

It is basic patent law that “[t]o establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation ... to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant’s disclosure.” (Emphasis supplied) *In re Vaeck*, 947 F.2d 488, USPQ 2d 1438 (Fed Cir. 1991).

The final office action dated March 1, 2005, maintains the arguments presented in the office action dated June 22, 2004, which asserts that “[g]reenway differs from the claimed invention because it does not disclose the precise patterns claimed and does not disclose the average height differential. However, Greenway does teach that the pattern on the fabric will directly reflect the pattern on the forming surface. Therefore, it would have been obvious to one of ordinary skill in the art to have selected the appropriate patterns which would produce the desired characteristics such as softness, hand, etc in the final product.”

Applicants respectfully disagree.

At the outset, Applicants submit that Greenway *et al.* disclose a process and related apparatus which obtains a higher degree of fiber entanglement with consequent improved fabric texture and tensile strength characteristics. (see for example Col 2, lines 9-13 and lines 20-22).

The solution offered by Greenway *et al.* to increase the tensile strength of the resulting fabric, is to hydroentangle a web in a two stage process.

During the first stage, an entangling member including a symmetrical pattern of void areas is associated to a fluid curtain to pre-entangle the web (see for example Col 2, lines 61-63 and Col 5, lines 12-43)

During the second stage, the pre-entangled web is advanced to a module 20 having a second entangling member 52 which can be formed from a plate fabricated of stainless steel in which the void areas comprise generally circular apertures defined by circumferential edges which, when associated with manifolds carrying jet nozzles, produces a fabric having increased tensile strength. (See for example Col 6, lines 60-68 and Col 6, lines 1-16)

Greenway *et al.* disclose that preferred entangling results are obtained by provision of baffle members including a radiused curvature which define apertures having a "frusto-conical" configuration. (See Col 3, lines 7-10, Col 6, lines 19-24 and Figs. 4C, 4D, 6A and 6B)

What is clear from Greenway *et al.*, is that "[n]onwoven fabrics produced by the dual entangling process of the invention are characterized by close knit fiber interstitial binding which enhances the fabric tensile strength and aesthetic." (See for example Col 7, lines 21-24 and Figs. 11A-12B comparing the tensile characteristics of fabrics obtained from identical webs subjected to different entangling members).

As best understood by applicants, Greenway *et al.* disclose that the best tensile strength results are obtained when a web is entangled on an entangling member having "frusto-conical" apertures in comparison to an entangling member having apertures with square edges or an entangling member formed of a woven screen (see for example Table VI, Table VII, and Col 9, lines 39-42 and 55-56, Col 10, lines 1-2).

Greenway *et al.* explain that "[v]ector forces in the frusto-conical member are uniformly directed into void areas of the member upon impact with radiused surface of baffle members. Downward and inward direction of the fluid vectors obtains efficient energy transfer to the web of the fluid forces. It will be seen that in the conventional squared edge member, fluid forces are, in part, directed across the web surface with consequent dissipation of fluid energy." (Emphasis supplied, see Col 7, lines 7-15)

As best understood by applicants, it appears that the solution offered by Greenway *et al.* to the problem of increasing the tensile strength of a fabric is to modify the edges portion of the

apertures of the entangling member that are adjacent to the web during entanglement by rounding and increasing the radius of the apertures' edges.

Greenway *et al.* further explain that “[a]dvantage is obtained in the invention by the provision of novel frusto-conical entangling member 52 which directs fluid forces into a discrete and focused pattern to effect web entanglement”, and that “[t]wo stage entanglement in accordance with the invention employing a frusto-conical or radiused entry entangling member obtains further advantage in fabric aesthetics and tensile strength characteristics” (see Col 11, lines 64-68 and Col 13, lines 1-5).

Applicants submit that Greenway *et al.* do not explicitly discuss the three-dimensionality nature or characteristics of the resulting fabric nor its ability to remove and trap particulate soils from a surface to be cleaned.

Contrary to the office action's assertion, it is applicants' position that the '461 reference does not suggest the desirability to modify the entangling member of Greenway *et al.* in order to provide a cleaning sheet with channels having a width of between about 1 mm to about 8 mm and/or a cleaning sheet with a working face having an Average Height Differential of at least about 1 mm.

The office action asserts that one of ordinary skill in the art would have been motivated to modify Greenway *et al.* by selecting the appropriate pattern which would “produce the desired characteristics such as softness, hand, etc. in the final product”.

Applicants submit that modifying Greenway *et al.* in order to impact, one way or another, the softness or hand-feel of the resulting fabric has nothing to do whatsoever with providing a cleaning sheet for cleaning a surface having particulate soils. As a result, it is applicants' position that one of ordinary skill in the art would have had no motivation to modify the process disclosed by Greenway *et al.* to produce a cleaning sheet having the claimed characteristics.

As previously discussed, Greenway *et al.*'s solution to the problem of making a fabric with increased tensile strength, is to hydroentangle a web in a two stage process, one of this stages employing an entangling member with frusto-conical apertures or radiused entry which enhance energy efficiencies in the entangling process.

Applicants submit that Greenway *et al.* do not provide any motivation to modify their process and/or apparatus in a way which would produce a cleaning sheet as claimed.

In addition, applicants note that although Greenway *et al.* affirm that the resulting fabric has textile-like aesthetic, they do not teach or even suggest any correlation between softness,

hand-feel or even aesthetic and the Average Height Differential and/or width of the channels of the resulting fabric.

With this in mind, it is submitted that one of ordinary skill in the art in possession of the Greenway *et al.* reference at the time of the invention would not have recognized the need to provide a cleaning sheet having the claimed three-dimensional characteristics, and would have had no motivation to modify the Greenway *et al.* process and apparatus to produce a cleaning sheet as claimed.

It is also Applicants' position that one of ordinary skill in the art attempting to improve the Greeway *et al.* process or apparatus via experimentations or modifications, would have had no reasonable expectation of success to produce a cleaning sheet having a non-random three-dimensional pattern with channels having a width of between about 1 mm to about 8 mm and/or a cleaning sheet with a working face having an Average Height Differential of at least about 1 mm.

Applicants note that the modification suggested by Greenway *et al.* is to round the edges of the apertures of the forming surface by increasing their curvature angle. Applicants submit that rounding the edges of the apertures, would not result in a cleaning sheet having the claimed channel width and/or Average Height Differential.

Moreover, it is well settled patent law that "[t]he determination of what constitutes undue experimentation in a given case requires the application of a standard of reasonableness, having due regard for the nature of the invention and the state of the art. The test is not merely quantitative, since a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed." (Emphasis added, *In re Wands*, 858 F.2d 731, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1998))

It is also well accepted patent law that "[a]n obvious-to-experiment standard is not an acceptable alternative for obviousness. Selective hindsight is no more applicable to the design of experiments than it is to the combination of prior-art teachings. There must be a reason or suggestion in the art for selecting the procedure used, other than the knowledge learned from applicant's disclosure." *In re Dow Chemical Co.*, 837 F.2d 469, 5 U.S.P.Q.2d 1529 (Fed. Cir. 1988)

Applicants submit that since Greenway *et al.* do not provide any specific direction or guidance as to what modification would result in a fabric usable as a cleaning sheet having the claimed characteristics, it is Applicants' position that one of ordinary skill in the art in possession

of Greenway *et al.* would have to engage in undue experimentation to create a cleaning sheet as presently claimed.

Applicants submit that the office action does not state where in the Greenway, *et al.* reference it is suggested that the disclosed process and apparatus could be modified to produce a cleaning sheet as presently claimed. With regard to the rejection of record at paragraph 3 of the office action dated June 22, 2004, and maintained in the final office action dated March 1, 2005, the office action does not provide any secondary reference to combine with the Greenway, *et al.* reference in support of the position that the process and/or apparatus could be modified to produce the claimed cleaning sheet. Applicants respectfully remind the Examiner that Applicants' disclosure should not be used as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art. *Grain Processing Corp. v. American Maize-Products*, 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

Applicants note that "[t]o establish a prima facie case of obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).

Applicants submit that Greenway *et al.* do not teach nor even remotely suggest neither the width of the channels nor the average height differential of the fabric obtained with the apparatus and process disclosed. Applicants submit that the only mention of a height or a width by Greenway *et al.* is with regard to the entangling member.

Greenway *et al.* disclose that "the apertures (of the entangling member) may have a diameter of 1/16 inch and a center to center spacing of 3/32 inch. A preferred screen has a thickness of 0.03 inch." (See Col 6, lines 34-39)

Assuming, *arguendo*, that the resulting fabric would conform to the exact dimensions of the apertures of the entangling member, Applicants submit that the hypothetical average height differential of the resulting sheet would be of 0.762 mm (i.e. 0.03 inch = 0.762 mm).

Consequently, it is applicants' position that the office action fails to indicate where in the Greenway *et al.* reference, any teaching, motivation or suggestion can be found to modify the process and/or apparatus in order to produce a cleaning sheet as claimed.

In light of the foregoing analysis, it is Applicants' overall position that the rejections of claims 1, 49 and 62 over the Greenway *et al.* reference constitutes an impermissible hindsight reconstruction of the present invention. In that regard, attention is directed to *In re Dembiczak*,



175 F. 3d 994, 50 USPQ 2d 1614 (Fed. Cir. 1999). In that case, the Federal Circuit emphasized the principle that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is the rigorous application of the requirement for a showing of the teaching or motivation to combine or otherwise modify prior art references.

Furthermore, as stated in *In re Shuman* 361 F. 2d 1008, 1012, 150 USPQ 54, 57 (CCPA, 1966):

“It is impermissible to first ascertain factually what appellants *did* and then view the prior art in such a manner as to select from the random facts of that art only those which may be modified and then utilized to reconstruct appellant’s invention from such prior art.”

As also noted in *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F. 2d 1572, 1577 & n. 14, 221 USPQ 929, 933 & n. 14 (F. Cir. 1984), when [as in the instant case] prior art references require selective combination by the court to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight gleaned from the invention itself. [Cited in *Interconnect Planning Corp. v. Feil*, 227 USPQ 543, 551 (CAFC, 1985)]

In view of the foregoing, reconsideration and withdrawal of the rejection of claims 1, 49 and 62 as being unpatentable over Greenway *et al.* are requested.

#### **RESPONSE TO THE MARCH 1, 2005 FINAL OFFICE ACTION**

Pages 3-6 of the Final Office Action dated March 1, 2005 respond to Applicants previous arguments. Applicant respectfully submits the following rebuttal.

On page 3 of the Final Office Action, it is alleged that a “the particular patterns of the texturing can be selected so as to optimize the strength and aesthetic properties of the fabric.”

Applicants submit that the Greenway *et al.* reference does not teach what the parameters, that should be considered or varied in order to make a fabric more aesthetically appealing, are as alleged by the Office Action. The Office Action seems to take the position that one of ordinary skill in the art would have been motivated to increase the depth of the apertures of the forming plate in order to provide a stronger or more aesthetically appealing fabric. However, Applicants submit that Greenway *et al.* only disclose that the edges of the apertures made in the forming plate can be rounded. Applicants submit that rounding these edges would not provide a cleaning sheet having the claimed Average Height Differential of at least about 1 mm.

On page 4 of the Final Office Action, it is alleged that a “[t]he basis of the rejection is that given this teaching it would have been obvious to have optimized the texture through the process of routine experimentation.” Applicants submit that the motivation to modify what is known must be found in the prior art and not in Applicants’ disclosure. Since Greenway *et al.* seem to be concerned about the strength and aesthetic appeal of the fabric and since the solution given by Greenway *et al.* is to round the edges of the apertures of the forming plate, it is not clear what “optimizing the texture,” as argued by the Office Action, would be nor that it would result in the claimed cleaning sheet.

On page 5 of the Final Office Action, it is alleged that a “looking at Fig. 6b, the thickness referred to as D-1 relates to the width of the apertures at the top rather than the depth.” In their response, Applicants were merely pointing out what appears to be an inconsistency or a typographical error in the Greenway *et al.* reference. Greenway *et al.* disclose “[a] preferred screen, schematically illustrated in Fig. 6B, has a **thickness D-1** of 0.030 inch, and **aperture opening dimensions at the top and bottom sides** of the screen, D-2 and D-3, respectively of 0.093 and 0.062 inch.” (Emphasis added, see Col 6, lines 38-42) As best understood by Applicants and considering the plain meaning of the words “thickness” and “aperture opening,” as well as, Figure 6b then it appears that reference numerals D-1 and D-2 in Figure 6b should have in fact been numbered D-2 and D-3 and that reference numeral D-3 should have in fact been numbered D-1. In any event, Greenway *et al.* clearly states that the thickness of the screen is 0.030 inch which equates to about 0.762 mm which does not provide the claimed cleaning sheet.

The Final Office Action further asserts that “looking at figure 6b, it appears that since the edges of the apertures are curved, the height of the protuberance formed would be greater than the height of the aperture.” Applicants respectfully disagree. Greenway *et al.* disclose that the screen has a thickness of 0.030 inch. Assuming, *arguendo*, that the fibers were able to fill the entire cavity created by the opening through the whole thickness of the screen, Applicants submit that the resulting protrusion would have at best a theoretical height of 0.030 inch.

The Final Office Action also asserts that “Greenway teaches at Col. 13, lines 11-20 that the forming apparatus can be changed to produce different fabrics.”

As best understood by Applicants, Greenway *et al.* disclose that “[n]umerous modifications are possible in light of the above disclosure. For example, although the preferred entangling member has a **frusto-conical configuration**, **other gemometric configurations** which include separate or integral baffling structures may be employed in the invention apparatus. Similarly, although the preferred process line of the invention employs a “**pre-entanglement**”

module, it will be recognized that this process step may be **dispensed with and/or supplemented with other web formation steps.**" (Emphasis added, See Col 13, lines 11-20)

Although Greenway *et al.* disclose that the geometric configuration (i.e. shape) of the screen openings can be changed and that the pre-entanglement process can be modified, Applicants do not comprehend where in the Greenway *et al.* reference, the Office Action can find the motivation to increase the thickness of the screen. Without such a motivation, Applicants submit that it cannot have been obvious for one of ordinary skill in the art at the time the invention was made to have produced the claimed cleaning sheet.

The Final Office Action seems to take the position that one of ordinary skill in the art would have been motivated to increase the depth of the apertures of the forming plate in order to provide a stronger or more aesthetically appealing fabric. However, Applicants submit that Greenway *et al.* only disclose rounding the edges of the apertures which in no event would provide a cleaning sheet having the claimed Average Height Differential of at least about 1 mm.

The Final Office Action then argues that "so long as the judgement on obviousness takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the Applicants' disclosure, such a reconstruction is proper."

Applicants maintain that the Final Office Action judgement on obviousness was the result of impermissible hindsight reconstruction. Applicants submit that "[t]here must be a reason or suggestion in the art for selecting the procedure used, other than the knowledge learned from applicant's disclosure." *In re Dow Chemical Co.*, 837 F.2d 469, 5 U.S.P.Q.2d 1529 (Fed. Cir. 1988)

The Office Action contends that one of ordinary skill in the art would have been motivated to modify Greenway *et al.* by increasing the thickness of its screen in order to optimize the strength and aesthetic appeal of its fabric. However, this allegation is not supported by the disclosure of Greenway *et al.* which does not discuss the possibility of varying the thickness of its screen.

Assuming, *arguendo*, that one of ordinary skill in the art would nevertheless attempt to change the thickness of the screen, the Office Action does not indicate what motivation one of ordinary skill in the art would have to increase as opposed to decrease the thickness of the screen

nor what motivation one of ordinary skill in the art would have to increase the thickness of the screen such that he or she may be able to produce a cleaning sheet as presently claimed.

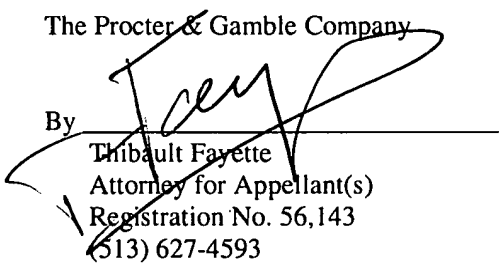
(8) **CONCLUSION**

In view of the foregoing arguments and remarks, it is respectfully submitted that all claims are allowable. Accordingly, Appellants respectfully request reversal of all rejections.

Respectfully submitted,

The Procter & Gamble Company

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## APPENDIX I

### Appealed Claims – Case 7880M

Claim 1. (*Rejected*) A disposable macroscopically three-dimensional non-apertured cleaning sheet for cleaning a surface having particulate soils, said cleaning sheet comprising a first layer of nonwoven material, a second layer of nonwoven material wherein said first layer is entangled to said second layer, wherein said first and second layers form a structure having a working face and a back face, wherein the working face comprises non-random raised regions and recessed regions, wherein said working face has an Average Height Differential of at least about 1 mm, wherein said recessed regions form a continuous pattern in the X-Y dimension surrounding discrete raised regions wherein said continuous recessed pattern comprises channels having a width of between about 1 mm to about 8 mm and wherein said non-random raised regions and said recessed regions form pockets on the surface of said working face for trapping particulates from said surface to be cleaned.

Claim 2. (*Rejected*) The non-apertured cleaning sheet of Claim 1 wherein said first layer and said second layer of said structure consists of material formed by hydroentanglement of fibers selected from the group consisting of natural fibers, polyolefins, polyesters, polyamides, synthetic cellulose, biodegradable fibers, bicomponent fibers, and blends thereof.

Claim 3. (*Rejected*) The cleaning sheet of Claim 2 wherein said first layer and said second layer of said structure consists of hydroentangled carded polyester fiber.

Claims 4-5. (*Cancelled*)

Claim 6. (*Rejected*) The non-apertured cleaning sheet of Claim 1 wherein the Average Height Differential of the working face is at least about 1.5 mm.

Claims 7-10. (*Cancelled*)

Claim 11. (*Rejected*) The non-apertured cleaning sheet of Claim 6 wherein the discrete raised surface is in the shape of a rounded parallelogram having a height of from about 6.0 mm to about 7.0 mm, a short diagonal of from about 6.5 mm to about 7.5 mm, and a long diagonal of from about 9.0 mm to about 10.0 mm.

Claim 12. (*Rejected*) The non-apertured cleaning sheet of Claim 6 wherein the discrete raised surface is in the shape of a wineskin having a width of from about 2.7 mm to about 3.7 mm, a base of from about 1.0 mm to about 2.0 mm, a height of from about 3.2 mm to about 4.2 mm, and a neck from about 0.5 mm to about 1.5 mm.

Claim 13. (*Rejected*) The non-apertured cleaning sheet of Claim 6 wherein the discrete raised surface is in the shape of a pie piece having side lengths of from about 2.0 mm to about 3.0 mm and a base lengths of from about 1.0 mm to about 2.0 mm, and having an included angle between the two sides of from about 55° to about 65°.

Claim 14. (*Rejected*) The non-apertured cleaning sheet of Claim 6 wherein the discrete raised surface is in the shape of a waved rectangle having a length of 4.0 mm to about 5.0 mm and a width of from about 1.5 mm to about 2.5 mm.

Claim 15. (*Rejected*) The non-apertured cleaning sheet of Claim 1 which further comprises a scrim.

Claim 16. (*Rejected*) The non-apertured cleaning sheet of Claim 6 which further comprises a scrim.

Claim 17. (*Rejected*) The non-apertured cleaning sheet of Claim 15 wherein the scrim is derived from a polyolefin.

Claim 18. (*Rejected*) The non-apertured cleaning sheet of Claim 15 wherein the scrim is derived from material selected from the group consisting of polypropylene, polyethylene, ethyl vinyl acetate, and mixtures thereof.

Claims 19-20 (*Cancelled*)

Claim 21. (*Rejected*) The non-apertured cleaning sheet of Claim 18 having an additive wherein said additive is included at an add-on level of at least about 0.01%, by weight of the sheet.

Claim 22. (*Rejected*) The non-apertured cleaning sheet of Claim 1 having an additive wherein said additive is included at an add-on level of at least about 1%, by weight of the sheet.

Claim 23. (*Rejected*) The non-apertured cleaning sheet of Claim 22 wherein said additive is included at an add-on level of from about 1 to about 15%, by weight of the sheet.

Claim 24. (*Rejected*) The non-apertured cleaning sheet of Claim 23 wherein additive is included at an add-on level of from about 3 to about 10%, by weight of the sheet.

Claim 25. (*Rejected*) The non-apertured cleaning sheet of Claim 22 wherein the additive is a mixture of mineral oil and a wax.

Claims 26-30 (*Cancelled*)

Claim 31. (*Rejected*) A cleaning implement comprising:

- a. a handle; and
- b. a removable cleaning sheet, wherein the cleaning sheet is the sheet of Claim 1.

Claim 32. (*Rejected*) A cleaning implement comprising:

- a. a handle; and
- b. a removable cleaning sheet, wherein the cleaning sheet is the sheet of Claim 6.

Claim 33. (*Rejected*) A cleaning implement comprising:

- a. a handle; and
- b. a removable cleaning sheet, wherein the cleaning sheet is the sheet of Claim 22.

Claim 34. (*Rejected*) A cleaning implement comprising:

- a. a handle; and
- b. a removable cleaning sheet, wherein the cleaning sheet is the sheet of Claim 13.

Claims 35-36. (*Cancelled*)

Claim 37. (*Rejected*) A method for cleaning a surface comprising contacting the surface with the working face of the cleaning sheet of Claim 1.

Claim 38. *(Rejected)* A method for cleaning a surface comprising contacting the surface with the working face of the cleaning sheet of Claim 6.

Claims 39-46 *(Cancelled)*

Claim 47. *(Rejected)* The cleaning sheet of claim 22 wherein said additive is applied to said continuous pattern.

Claim 48. *(Rejected)* The cleaning sheet of claim 47 wherein said cleaning sheet is folded such that said working face faces outwardly.

Claim 49. *(Rejected)* A disposable macroscopically three-dimensional cleaning sheet for cleaning a surface having particulate soils, said cleaning sheet comprising:

at least one layer of nonwoven material having a working face and a back face, wherein said working face comprises non-random raised regions and recessed regions wherein said recessed regions form a continuous pattern in the X-Y dimension surrounding discrete raised regions wherein said continuous recessed pattern comprises channels and wherein said working face has an Average Height Differential of at least about 1 mm.

Claim 50. *(Rejected)* The disposable cleaning sheet of claim 49 wherein said channels have a width of between about 0.25 mm to about 10 mm

Claim 51. *(Rejected)* The disposable cleaning sheet of Claim 50 wherein said channels have a width of between about 1 mm to about 8 mm.

Claim 52. *(Rejected)* The disposable cleaning sheet of Claim 49 wherein the Average Height Differential of the working face is at least about 1.5 mm.

Claim 53. *(Rejected)* The disposable cleaning sheet of Claim 49 further comprising an additive for improving the adherence of said particulate soil to said cleaning sheet wherein said additive is included at an add-on level of at least about 0.01%, by weight of the sheet.

Claim 54. *(Rejected)* The disposable cleaning sheet of Claim 53 wherein said additive is included at an add-on level of at least about 1%, by weight of the sheet.



Claim 55. (*Rejected*) The disposable cleaning sheet of Claim 54 wherein said additive is included at an add-on level of from about 1% to about 15%, by weight of the sheet.

Claim 56. (*Rejected*) The disposable cleaning sheet of claim 50 wherein said discrete raised regions have a rounded parallelogram shape in the X-Y dimension.

Claim 57. (*Rejected*) The disposable cleaning sheet of claim 53 wherein said additive is applied to said continuous pattern.

Claim 58. (*Rejected*) The disposable cleaning sheet of claim 57 wherein said cleaning sheet is folded such that said working face faces outwardly.

Claim 59. (*Rejected*) The disposable cleaning sheet of claim 53 wherein said cleaning sheet is made of a single layer of nonwoven material.

Claim 60. (*Rejected*) A cleaning implement comprising:

- a. a handle; and
- b. a removable and disposable cleaning sheet, wherein the cleaning sheet is the sheet of Claim 49.

Claim 61. (*Rejected*) A method of cleaning a floor surface comprising contacting the surface with the working face of the cleaning sheet of Claim 49.

Claim 62. (*Rejected*) A disposable macroscopically three-dimensional cleaning sheet for cleaning a surface having particulate soil, said cleaning sheet comprising:

at least one layer of nonwoven material having a working face and a back face, wherein said working face comprises raised regions and recessed regions wherein said recessed regions form a continuous pattern in the X-Y dimension surrounding discrete raised regions wherein said continuous recessed pattern comprises channels having a width of between about 1 mm to about 8 mm and wherein said working face has an Average Height Differential of at least about 1 mm such that said raised regions and said recessed regions form pockets on the surface of said working face for trapping and removing large particulates from said surface to be cleaned and

wherein said working face comprises an additive for improving the adherence of said particulate soil to said cleaning sheet.

Claim 63. *(Rejected)* The disposable cleaning sheet of Claim 62 wherein the Average Height Differential of the working face is at least about 1.5 mm.

Claim 64. *(Rejected)* The disposable cleaning sheet of claim 63 wherein said additive is included at an add-on level of at least about 0.01%, by weight of the sheet.

Claim 65. *(Rejected)* The disposable cleaning sheet of Claim 64 wherein said additive is included at an add-on level of at least about 1%, by weight of the sheet.

Claim 66. *(Rejected)* The disposable cleaning sheet of Claim 65 wherein said additive is included at an add-on level of from about 1% to about 15%, by weight of the sheet.

Claim 67. *(Rejected)* The disposable cleaning sheet of claim 66 wherein said additive is applied to said continuous pattern of said working face.

Claim 68. *(Rejected)* The disposable cleaning sheet of claim 67 wherein said back face comprises raised regions and recessed regions wherein said recessed regions and raised regions of said back face respectively correspond to said raised regions and said recessed regions of said working face.

Claim 69. *(Rejected)* The disposable cleaning sheet of claim 68 wherein said cleaning sheet is folded such that said working face faces outwardly.

Claim 70. *(Rejected)* The disposable cleaning sheet of claim 69 wherein said cleaning sheet is made of a single layer of nonwoven material.

Claim 71. *(Rejected)* A cleaning implement comprising:

- a. a handle; and
- b. a removable cleaning sheet, wherein the cleaning sheet is the sheet of Claim 62.

Claim 72. *(Rejected)* A method for cleaning a surface comprising contacting the surface with the working face of the cleaning sheet of Claim 62.

